

Abstract

Certain embodiments are directed to using an insulator element in a transposon having at least one transcriptional unit and at least one insulator element. The transcriptional unit(s) may be flanked by at least one insulator element on each side. The transcriptional unit may include an exogenous nucleic acid for introduction into a cell, e.g., DNA encoding a marker molecule. The insulator element may include a binding site for a CTCF protein. And, for example, a transcriptional unit may be disposed between a first insulator element and a second insulator element, and the first insulator element and the second insulator element may be disposed between inverted repeats of a transposon.

The exogenous nucleic acid may be, e.g., DNA encoding an antisense RNA or siRNA.